

MONOLITHIC, SIDE-PUMPED, PASSIVELY Q-SWITCHED SOLID-STATE LASER

ABSTRACT OF THE DISCLOSURE

A monolithic, side pumped, passively Q-switched, solid-state laser (10) includes a laser resonator structure (16) that includes a laser gain medium (12) having an output face bonded to a passive Q-switch (14). The gain medium (12) has a side face (12A) for receiving pump light. The pump light is preferably generated by a laser diode array (20). In a further embodiment, a non-linear optical material (22), such as frequency doubling KTP, is optically coupled to an output face of the Q-switch for providing output wavelength conversion. A method is also disclosed for fabricating the monolithic, side pumped, passively Q-switched, solid-state laser. Techniques are included for providing compensation from thermal aberrations during operation of the laser.